



Learn 2D GameDev From Zero With Godot 4

Finally become a game developer!

- ✓ No previous knowledge required
- ✓ 60 day "no questions asked" refund policy
- ✓ Lifetime access

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 **EARLY ACCESS**
JAN 30, 2024

 **GODOT VERSION**
Latest (Godot 4+)

 **DURATION**
Self-paced

 **LANGUAGE**
English

 **PREREQUISITES**
None

Important Notice:

Throughout Early Access, this outline is provided for reference only. It remains subject to modification based on user feedback and other pedagogical factors.

Course content: 19 modules featuring GDQuest Edtech:

- ✓ **GDSchool:** GDQuest's unique, integrated learning platform dedicated to gamedev education. GDSchool is packed with interactive tools, study guides, glossary terms, code references, quizzes and practices integrating lessons and in-Godot practices.
- ✓ **GDPractice:** Gamedev exercises validated directly in the Godot editor using GDQuest's Live Testing Panel.
- ✓ **GDTour:** In-Godot wizards providing step-by-step interactive GDQuest tutorials with live validation.



Module 1. Introduction

ETA: 30 min - 1 hr

Get to know GDQuest's gamedev teaching method. Understand what to expect from the course and how to get set up to start learning and becoming productive.

Gamedev concepts: Effective learning habits, the programmer mindset.

- ✓ **GDSchool**



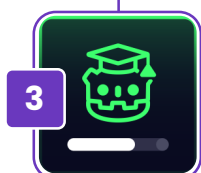
Module 2. Get to know Godot

ETA: 1 - 2 hrs

Get familiar with the Godot editor UI with a series of interactive tours that guide you as you explore an existing game project and assemble your first game from pre-made parts. The game you assemble is a simplified version of the course's final game project!

Gamedev concepts: Introduction to the editor UI and essential elements of the gamedev workflow in the Godot engine.

- ✓ **GDTour**
- ✓ **GDSchool**



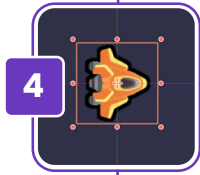
Module 3. Learn GDScript

ETA: 10 - 15 hrs

Learn programming and GDScript basics using GDQuest's tried and tested interactive app with 28 lessons and dozens of validated exercises and practices.

Gamedev concepts: Foundations of programming for gamedev.

- ✓ **Learn GDScript app**



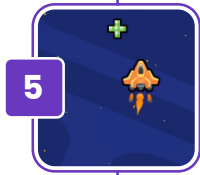
Module 4. To Space and Beyond

ETA: 5 – 8 hrs

Create your first scene from scratch, and design a ship that responds to player input, with a top-down view. Start using the Godot editor freely without the constraints of the guided tour.

Gamedev concepts: Player inputs, moving a sprite on screen, rotating a sprite in the direction of input, code time-limited boosts and use timers and signals, create steering behaviors.

✓ [GDSchool](#) ✓ [GDPractice](#)



Module 5. Let There Be Loot

ETA: 5 – 8 hrs

Code collectibles like coins and health packs the ship from the previous module can collect.

Gamedev concepts: Simple use of physics areas, collision shapes, signals, creating and instancing scenes in the editor, health bar, using the remote scene tree to visualize nodes in the running game. Builds upon the previous module.

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Module 6. Loot it All

ETA: 5 – 8 hrs

Build upon the collectibles created in the previous part.

Create a chest that, upon receiving user input, spawns multiple collectibles.

Gamedev concepts: Using areas and input together to interact with game entities, creating scene instances dynamically, spawning objects in the game world, simple animations.

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Module 7. Tell a Story

ETA: 6 – 10 hrs

Code a linear dialogue as the intro cutscene of a game. Work your way from having a single character tell a story in a monologue to having a conversation between two characters.

Gamedev concepts: Using arrays, using dictionaries, looping through an array of dictionaries, using buttons for input, keeping track of an index value, tween animation, playing sound.

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Module 8. Start a Dialog

ETA: 5 – 8 hrs

Code a branching dialogue system that supports different outcomes based on player choices. Use custom resources to encode the dialogue in a well structured object that can be saved to disk.

Gamedev concepts: Branching dialogues, further applications of arrays and dictionaries, intro to data structures, intro to resources (serialization).

✓ [GDSchool](#) ✓ [Godot Practices](#)



Module 9. Top Down Movement

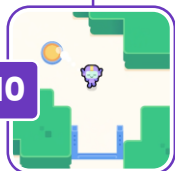
ETA: 3 – 5 hrs

Code a top-down character that can move in 4 or 8 directions, with changing sprite frames.

Gamedev concepts: Inputs, review of top-down movement, changing sprite frames, dictionary lookup.

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Module 10. Obstacle Course I

ETA: 7 - 10 hrs

Using the top-down character and collectibles from the previous modules, set up your first mini-game, an obstacle course! The player has to reach the finish line within the time limit.

Gamedev concepts: Tileset/Tilemaps, collision polygons, timers, time countdown, gameplay loop, animated colliders, ysort.

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Module 11. Fixing Game Bugs

ETA: 2 - 3 hrs

Start with a buggy game that you can't play and learn the process and methodology to find the cause of bugs and fix them.

Gamedev concepts: Code debugging features, printing text to the output panel, using the debugger, adding breakpoints to pause code execution, stepping through lines of code interactively, the GDQuest method to fix bugs.

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Module 12. Tower Defense

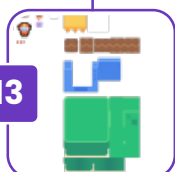
ETA: 6 - 9 hrs

Create turrets that detect targets in range and projectiles that home to their targets.

Gamedev concepts: Basic AI, areas, looking at a point, inheritance, homing, dealing damage, changing the state of entities overlapping an area.

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Module 13. Procedurally Generated Obstacles

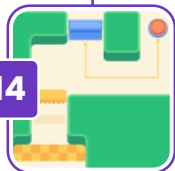
ETA: 2 - 3 hrs

Write code to randomly place hazards in dedicated areas on a map.

Gamedev concepts: Basics of procedural content generation, generating random numbers, changing tilemap tiles (possibly white noise and blue noise).

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Module 14. Obstacle Course II

ETA: 4 - 6 hrs

Improve the obstacle course with procedurally-generated hazards and power-ups that change the character's state (temporary speed up, invisibility), and doors that open when the character walks on pressure plates.

Gamedev concepts: Integration of procedural generation into a more complex game, pickups that change state, pressure plates, doors and switches.

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Module 15. Side-Scroller

ETA: 6 - 10 hrs

Create the player character, enemy, and obstacles in a side-scrolling platform game.

Gamedev concepts: Jump and fall, double jump, raycasts, rigid bodies, disappearing platforms, camera, review of pressure plates and doors.

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Module 16. Scoreboard, UI, Saving & Loading

ETA: 5 – 8 hrs

Design and implement a scoreboard for the obstacle course game, complete with saving and loading high scores.

Gamedev concepts: Designing a menu in Godot, control nodes, saving data to the disk, loading data from the disk.

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Module 17. Obstacle Course III: 2 players!

ETA: 4 – 6 hrs

Complete the obstacle course with two-player controls and split screen views.

Gamedev concepts: Code reuse, DRY, character customization, abstracting input, viewports.

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Module 18. Final Challenge: Path of Sorcerers

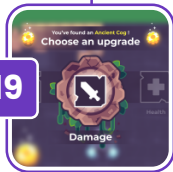
ETA: 10 – 20 hrs

Reuse everything you've learned to build a complete game inspired from roguelites in the style of The Binding of Isaac.

Gamedev concepts: Reading, understanding and building upon game code, organizing scripts and files in a larger project, managing complexity.

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Module 19: Where to Go from Here

ETA: 30 min – 1 hr

Take stock of what you've learned in this course.

Get some pointers to continue your journey as a game developer.

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